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## City of Brownwood

PWSID # 0250002

The City of Brownwood Utility Department has been providing clean water to the community since the early 1900s, helping to keep you and your family healthy. We take this mission very seriously. As shown in this annual report covering the year 2014, the water we delivered surpassed the strict regulations of the State of Texas and the U.S. Environmental Protection Agency. This report is a summary of the quality of water we provide for our customers.

The City of Brownwood purchases treated water from Brown County Water Improvement District #1. The District's water source is a combination of Pecan Bayou and Lake Brownwood.

The TCEQ has completed a Source Water Susceptibility for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts for our system, contact Brown County Water Improvement District #1. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>.

The city water delivery system consists of more than 150 miles of various size water mains and four storage tanks containing 5 million gallons of water. We are continuing to make improvements and expanding our capabilities in order to provide to you, our customer, a quality product and quality service.

There is nothing more basic to life in our community than quality drinking water. That is why we at the City of Brownwood Utility Department maintain our distribution system and anticipate needs and problems before they arise. To maintain superior water quality, disinfectant residual tests are run daily and dead end mains flushed monthly. Our overall success depends on quality workmanship, quality teamwork, a quality workplace and quality communication with one another, our customers, and the public. The City of Brownwood maintains a superior water system rating from the State of Texas.

### Educational Information:

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

### Need More Information!

For more information about your drinking water and for opportunities to get involved, please contact the Utility Dept. by calling (325) 646-6000 between 8 am - 5 pm or by writing to P.O. Box 1389, Brownwood, Texas 76804. Also, you are welcome and encouraged to attend council meetings on the second and fourth Tuesdays: 9:00 a.m., at City Hall, 501 Center Street. [www.ci.brownwood.tx.us](http://www.ci.brownwood.tx.us).

Este reporte incluye informacion importante sobre el agua para tomar. Para obtener una copia de esta informacion traducida al Espanol, facor de llamar al telefono (325) 646-5775.

### Water Saving Tips

Design a water-efficient landscape by planting drought-tolerant grass and choosing plants that are native or well adapted to our climate conditions.

Prevent evaporation of water. Water lawns early in the morning or in the evening. Never water on windy days.

Don't abuse the benefits of an automatic sprinkler system. Check sprinkler heads regularly to make sure they are working properly. Don't water sidewalks, driveways or streets! Proper watering will help grass and shrubs develop deep roots (it is especially important to start this during the spring when root growth is at its peak). Over-watered turf will have a short root system and will not be drought tolerant. By slowly adjusting to successively longer periods between waterings, the turf can grow deeper roots and become drought tolerant.

Contaminants in Drinking Water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, those who are undergoing treatment with steroids, and people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

- \*\*Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- \*\*Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- \*\*Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- \*\*Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.
- \*\*Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

### Conservation Tips

**Deep-soak your lawn on your designated day.**  
When watering the lawn, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. Put an empty tuna can on your lawn - when it’s full, you’ve watered about the right amount.

**Put a layer of mulch around trees and plants.**  
Mulch will slow evaporation of moisture while discouraging weed growth. Adding 2-4 inches of organic material such as compost or bark mulch will increase the ability of the soil to retain moisture. Press the mulch down around the dripline of each plant to form a slight depression which will prevent or minimize water runoff.

**Don’t water the gutter.**  
Position your sprinklers so water lands on the lawn or garden, not on paved areas. Also, avoid watering on windy days.

**Use a broom, not a hose, to clean driveways and sidewalks.**

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### Abbreviations

NTU - Nephelometric Turbidity Units  
pCi/L- picocuries per liter (a measure of radioactivity)  
ppm - parts per million, or milligrams per liter (mg/L)  
ppb - parts per billion or micrograms per liter ( g/L)

### Water Use and Lake Levels

This report notes the quality of City of Brownwood’s potable water. However, the quantity of that water needs to be **EVERYONE’S** concern. Due to below average rainfall for the last several years, the level of Lake Brownwood has fallen. Since this is our regional water supply for household, commercial, industrial, recreational and agricultural uses, it has become necessary to make changes in our daily habits, concerning water usage. This is the reason the State of Texas requires all water systems to have a Drought Contingency Plan. The Plan is written to require conservation efforts. These requirements become stricter as the level of the lake drops.

As one of our most valuable natural resources, water conservation should always be a priority. Water conservation brochures are free and available, on the first floor of City Hall. Be aware of current lake levels and water use requirements by listening to radio, television, or reading local press releases. You may also call the City of Brownwood Service Center, between 8am and 5 pm, Monday thru Friday, for a friendly update. This phone number is 325-646-6000.

DEFINITIONS:

**Maximum Contaminant Level (MCL)**  
The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)**  
The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)**  
The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

| Year or Range   | Constituent               | Average Level                             | Minimum Level                              | Maximum Level | MCL              | MCLG  | Unit of Measure | Source of Contaminant  |
|---|---------------------------|---|--|---------------|------------------|-------|-----------------|--|
| 2014  | Fluoride                  | 0.23                                      | 0.23                                       | 0.23          | 4                | 4     | ppm             | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| 2014  | Nitrate                   | 0.13                                      | 0.122                                      | 0.134         | 10               | 10    | ppm             | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.                               |
| 2011  | Gross beta emitters       | 5.9                                       | 5.9  | 5.9           | 50               | 0     | pCi/L           | Decay of natural and man-made emitters deposits.   |
| Organic Contaminants TESTING WAIVED, NOT REPORTED, OR NONE DETECTED   |                           |   |  |               |                  |       |                 |  |
| Maximum Residual Disinfectant Level   |                           |   |  |               |                  |       |                 |  |
| Year  | Disinfectant              | Average Level                             | Minimum Level                              | Maximum Level | MRDL             | MRDLG | Unit of Measure | Source of Disinfectant   |
| 2014  | Chloramines               | 3.65                                      | 0.5  | 6.2           | 4                | 4     | ppm             | Disinfectant used to control microbes.   |
| Disinfection By-products  |                           |   |  |               |                  |       |                 |  |
| Year  | Contaminant               | Average Level                             | Minimum Level                              | Maximum Level | MCL              |       | Unit of Measure | Source of Contaminant  |
| 2014  | Total Haloacetic Acids    | 17.2                                      | 11.1                                       | 21.8          | 60               |       | ppb             | By-product of drinking water disinfection.   |
| 2014  | Total Trihalomethanes     | 63.8                                      | 48.2                                       | 94.6          | 80               |       | ppb             | By-product of drinking water disinfection.   |
| Lead and Copper   |                           |   |  |               |                  |       |                 |  |
| Year  | Contaminant               | The 90th Percentile                       | Number of Sites Exceeding Action Level     |               | Action Level     |       | Unit of Measure | Source of Contaminant  |
| 2013  | Lead                      | 0.00236                                   | 0  |               | .015             |       | ppm             | Corrosion of household plumbing systems; erosion of natural deposits.  |
| 2013  | Copper                    | 0.173                                     | 0  |               | 1.3              |       | ppm             | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.                    |
| "If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When you water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a> " |                           |   |  |               |                  |       |                 |  |
| Turbidity   |                           |   |  |               |                  |       |                 |  |
| Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.  |                           |   |  |               |                  |       |                 |  |
| Year  | Contaminant               | Highest Single Measurement                | Lowest Monthly % of Samples Meeting Limits |               | Turbidity Limits |       | Unit of Measure | Source of Contaminant  |
| 2014  | Turbidity                 | 0.136                                     | 100%                                       |               | 95% < 0.3        |       | NTU             | Soil runoff.   |
| Total Coliform  |                           |   |  |               |                  |       |                 |  |
| Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.   |                           |   |  |               |                  |       |                 |  |
| Year  | Contaminant               | Lowest Monthly Number of Positive Samples |  |               | MCL              |       | Unit of Measure | Source of Contaminant  |
| 2014  | Total Coliform Bacteria   | 0   |  |               | *                |       | Presence        | Naturally present in the environment.  |
| * Two or more coliform found in samples in any single month.  |                           |   |  |               |                  |       |                 |  |
| Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.   |                           |   |  |               |                  |       |                 |  |
| Secondary and Other Constituents Not Regulated<br>(No associated adverse health effects)  |                           |   |  |               |                  |       |                 |  |
| Year  | Constituent               | Average Level                             | Minimum Level                              | Maximum Level | Secondary Limit  |       | Unit of Measure | Source of Contaminant  |
| 2014  | Bicarbonate               | 105                                       | 105  | 105           | NA               |       | ppm             | Corrosion of carbonate rocks such as limestone.  |
| 2014  | Chloride                  | 56.4                                      | 56.4                                       | 56.4          | 300              |       | ppm             | Abundant naturally occurring element; used in water purification; by-product of oil field activity                         |
| 2014  | pH                        | 7.2                                       | 7.2  | 7.2           | >7.0             |       | units           | Naturally occurring; common industrial by-product.   |
| 2014  | Sulfate                   | 39.8                                      | 39.8                                       | 39.8          | 300              |       | ppm             | Naturally occurring; common industrial by-product.   |
| 2014  | Total Alkalinity as CaCO3 | 105                                       | 105  | 105           | NA               |       | ppm             | Naturally occurring soluble mineral salts.   |
| 2014  | Total Dissolved Solids    | 282                                       | 282  | 282           | 1000             |       | ppm             | Total dissolved mineral constituents in water.   |

**Maximum Residual Disinfectant Level Goal (MRDLG)**  
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Treatment Technique (TT)**  
A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)**  
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**90th Percentile**  
90% of samples are equal to or less than the number in the chart.